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CLASSIFICATION OF THE POINTED-TAILED WASPS, OR THE SUPERFAMILY PROCTOTRYPOIDEA.—III.

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Family LVI. SCELIONIDÆ.

The position of the antennæ, which are inserted low down on the face or close to the clypeus, and the shape of the abdomen, which is always acute or margined along the sides, the tergites and sternites where they unite usually forming a fold or carina, will at once distinguish the wasps belonging to this family, from those which follow. The family comes quite close to the family *Platygasteridæ*, the two having been classified together as a single family by Haliday, but it may be easily separated from that family by abdominal peculiarities, by the differences in the antennæ, and by the totally different venation of the front wings.

The family *Scelionidæ* is one of the most extensive, being widely distributed over the entire world, with many genera and species but imperfectly studied. All of the species, without a single exception are egg-parasites of other insects, the *Lepidoptera*, *Hemiptera*, *Orthoptera* and *Neuroptera* especially being the ones most frequently attacked by them; other orders, however, are not exempted from their attacks, and one little group, the *Bæinæ*, destroy the eggs of various spiders (*Arachnida*).

TABLE OF SUBFAMILIES.

- | | |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---|
| 1. Abdomen always with a distinct lateral carina..... | 2 |
| Abdomen without a distinct lateral carina, although more or less acute, in shape most frequently broadly oval, rarely pointed ovate, but depressed, the second segment always the largest and longest; front wings with the post-marginal and stigmal veins long; ♀ with 11-jointed antennæ, rarely 12-jointed, clavate or subclavate; ♂ antennæ 12-jointed..... | |
| 2. Abdomen sessile, most frequently long, fusiform or linear, extending beyond the tip of the wings when folded, rarely broadly oval, the segments more nearly equal, or the third segment is the longest, although rarely much longer than some one of the others; post-marginal vein usually present, rarely wanting, if wanting the submarginal vein ends in a stigma..... | 3 |
| Subfamily I. <i>TELENOMINÆ</i> . | |

6. Head transverse, convex in front, the ocelli arranged in a triangle, the lateral close to the eye margin; wings not banded; club of antennæ 4-jointed.
Tiphodytes Bradley = **Limnodytes** Marchal.
 (type *L. gerriphagus* MARCHAL.).
 Head large, flat, the ocelli in a triangle, the lateral nearer to the front ocellus than to the eye margin; wings banded.....**Aradophagus** Ashmead.
 (type *A. fasciatus* ASHM.).
7. Lateral ocelli not touching the eye margin.....(?) **Hemisius** Westw.
 Lateral ocelli touching the eye margin.
 Mesonotum without parapsidal furrows..... 8.
 Mesonotum with parapsidal furrows.
 Postscutellum spined.....**Trimorus** Förster.
8. Head transverse, often very broad; abdomen oblong-oval or broadly oval..... 9.
 Head quadrate**Phanurus** Thomson
9. Pedicel clavate; first joint of the flagellum longer than the second, the latter longer than the third.....**Telenomus** Haliday.
 Pedicel oblong; first joint of the flagellum the longest joint, the second shorter than the third..**Tiphodytes** Bradley = **Limnodytes** Marchal.

Subfamily II. BÆINÆ.

This group was first recognized by the author as a tribe, but is now elevated to subfamily rank. To it belong some of the smallest Hymenoptera, the majority rarely attaining a millimeter in length, and all of them seem to be parasitic only in the eggs of various spiders. (Arachnida).

Table of Genera.

1. Females 2
 Males 9
2. Apterous forms..... 3
 Winged..... 6
3. Scutellum distinct..... 4
 Scutellum wanting.....**Bæus** Haliday (type *B. seminulum* HALIDAY).
4. Mesonotum without furrows; lateral ocelli close the eye margin.
 Basal segment of abdomen normal, without a horn..... 5
 Basal segment of abdomen with a horn.....**Ceratobæus** Ashmead.
 (type *C. cornutus* ASHM.).
5. First abdominal segment as broad as the metathorax and only visible as a transverse line; face with an antennal furrow, the occiput concave, the superior margin sharp; mandibles bidentate.....**Acolus** FÖRSTER
 (type *A. opacus* THOMS.).
 First abdominal segment subpetiolate, much narrower than the metathorax; face not or only slightly impressed, the superior margin of the occiput rounded; mandibles tridentate.....**Acoloides** Howard (type *A. saitiidis* HOW.).
6. Basal segment of abdomen normal, without a horn..... 7
 Basal segment of abdomen with a horn.
 Mesonotum without furrows**Ceratobæus** Ashmead.

7. Mesonotum with parapsidal furrows 8
 Mesonotum without parapsidal furrows.
 Mandibles bidentate..... **Acolus** Förster.
 Mandibles tridentate..... **Acoloides** Howard.
8. First abdominal segment petioliform ; eyes bare ; lateral ocelli away from the eye margin **Thoron** Haliday (type *T. metallicus* HAL.).
9. Mesonotum without parapsidal furrows..... 10
 Mesonotum with parapsidal furrows 13
10. Lateral ocelli close to the eye margin ; antennæ filiform, moniliform or submoniliform.
 Basal nervure present..... 11
 Basal nervure wanting 12
11. Head subquadrate, only slightly wider than the thorax ; antennæ slightly thickened toward apex ; basal abdominal segment petioliform, much narrower than the metathorax..... **Bæus** Haliday.
 Head transverse, much wider than the thorax ; eyes bare ; antennæ tapering toward apex ; basal abdominal segment as wide as the metathorax.
 **Acolus** Förster.
12. Head transverse, scarcely wider than the thorax ; eyes hairy ; antennæ slightly thickened toward apex **Acoloides** Howard.
13. Antennæ filiform, the flagellar joints about thrice as long as thick.
 **Thoron** Haliday.

Subfamily III. TELEASINÆ.

This most interesting group is quite distinct from the others in antennal, abdominal and venational peculiarities. The antennæ are inserted rather close together on a clypeal prominence ; the abdomen is always distinctly margined at the sides, narrowed towards the base, the third segment the longest ; while the marginal vein is always long or greatly lengthened, the stigmal vein minute, hardly developed.

The group differs also in habits from the Telenominæ and the Bæinæ, since the species attack only the eggs of beetles, and not the eggs of Lepidoptera, Hemiptera and spiders.

Table of Genera.

1. Females 2
 Males 9
2. Abdomen long-oval or long-ovate, the first segment petioliform, longer than wide..... 3
 Abdomen broadly oval, the first segment wider than long..... 7
3. First abdominal segment without a horn..... 4
 First abdominal segment with a horn.
 Postscutellum with three spines **Pentacantha** Ashmead.
 (type *P. canadensis* ASHM.).
4. Mesonotum with parapsidal furrows..... 5
 Mesonotum without parapsidal furrows..... 6

5. Metascutellum with three spines.....**Trissacantha** Ashmead.
(type *T. americana* ASHM.).
Metascutellum with one spine.....**Xenomerus** Walker.
(type *X. ergenna* WALK.).
6. Postscutellum with a single large spine ; mandibles bifid, the outer tooth the larger.
Posterior femora, tibiæ and tarsi slender, the tibial spurs weak.**Prosacantha** Nees (type *P. longicornis* NEES).
Posterior femora swollen, tibiæ dilated at apex, the basal joint of tarsi short,
stout, the tibial spurs not weak.**Teleas** Latreille.
(type *T. clavicornis* LATR.).
7. Apterous forms..... 8
Winged.
Metascutellum with a spine or tuberculate.....**Hoplogryon** Ashmead.
(type *H. minutissimus* ASHM.).
Metascutellum simple, unarmed...**Gryon** Haliday (type *G. misellus* HAL.).
8. Metascutellum with a small spine or tubercle**Hoplogryon** Ashmead.
Metascutellum simple without a spine or tubercle**Gryon** Haliday.
9. Abdomen long-oval, the first segment petioliform ; marginal vein very long... 10
Abdomen broadly oval, the first segment usually wider than long. 13
10. Mesonotum with parapsidal furrows..... 11
Mesonotum without parapsidal furrows. 12
11. Postscutellum with three spines ; antennæ very long, filiform, pubescent.
Trissacantha Ashmead.
Postscutellum with one spine ; antennæ with whorls of long hairs.
Xenomerus Walker.
12. Hind femora not swollen, the tibial spurs not developed, the basal joint of tarsi
long, slender ; antennæ long, filiform, the flagellar joints at least four times as
long as thick, the third joint excised at base.....**Prosacantha** Nees.
Hind femora swollen, the tibial spurs developed, the basal joint of tarsi short,
stout ; antennæ filiform, the flagellar joints usually less than thrice as long as
thick.....**Teleas** Latreille.
13. Postscutellum with a small spine or tubercle ; antennæ filiform, the flagellar
joints elongate.....**Hoplogryon** Ashmead.
Postscutellum without a small spine or tubercle ; antennæ filiform, the joints
scarcely longer than thick.....**Gryon** Haliday.

Subfamily IV. SCELIONINÆ.

In having the abdomen always distinctly carinated at the sides this subfamily comes closest to the Teleasinae, but here the resemblance ceases, the abdomen, except in a few cases, being much more elongated and pointed, or fusiform, and extends beyond the tips of the wings when folded. With a little knowledge of the forms the student may at a glance recognize a species falling in this group, but when in doubt the venation may always be depended upon to distinguish the group, being quite characteristic. The postmarginal vein,

except in a few cases, is always fully developed and longer than the marginal, while the stigmal vein is never very short. The few forms without a postmarginal vein have the submarginal vein ending in a stigma (*Bæoneura* and *Scelio*).

The species falling in the groups confine their attacks principally to the eggs of orthopterous and hemipterous insects.

Table of Genera.

- | | |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----|
| 1. Females | 2 |
| Males | 31 |
| 2. Postmarginal vein always greatly lengthened, the submarginal vein complete, never ending in a stigma..... | 3 |
| Postmarginal vein wanting or poorly developed, always shorter than the stigmal vein, the submarginal vein often abbreviated and ending in a large stigma ; abdomen long, fusiform | 26 |
| 3. Basal nervure present, distinct..... | 4 |
| Basal nervure wanting..... | 15 |
| 4. Basal abdominal segment without a horn | 5 |
| Basal abdominal segment with a horn. | |
| Marginal vein short ; abdomen long, pointed-fusiform, the first segment narrow, petioliform, the second and third segments nearly equal. | |
| Caloteleia <i>Westwood</i> (type <i>C.</i>). | |
| Marginal vein long ; abdomen long, linear or subfusiform, the first segment quadrate or nearly | |
| Baryconus <i>Förster</i> (type unknown). | |
| 5. Abdomen long, pointed-fusiform or linear, with segments 2, 3 and 4 nearly equal | 6 |
| Abdomen not so long, oblong-oval or fusiform..... | 9 |
| 6. Mesonotum with parapsidal furrows..... | 7 |
| Mesonotum without parapsidal furrows..... | 12 |
| 7. Metanotum with a large semicircular enclosed space at base..... | 8 |
| Metanotum without an enclosed space at base. | |
| Mandibles 3-dentate..... | |
| Macroteleia <i>Westwood</i> . | |
| (type <i>M. cleonymoides</i> WESTW.). | |
| Mandibles 2-dentate..... | |
| Calliscello <i>Ashmead</i> (type <i>C. laticincta</i> ASHM.). | |
| 8. Marginal vein punctiform..... | |
| Chromoteleia <i>Ashmead</i> . | |
| (type <i>C. semicyanea</i> ASHM.). | |
| 9. Postscutellum spined | 10 |
| Postscutellum not spined, simple..... | 13 |
| 10. Mesonotum with parapsidal furrows..... | 11 |
| Mesonotum without furrows..... | 12 |
| 11. Mandibles 2-dentate..... | |
| Opisthacantha <i>Ashmead</i> (type <i>O. mellipes</i> ASHM.). | |
| 12. Mandibles 2-dentate. | |
| Abdominal segments 1 and 2 of an equal length, the third long. | |
| ? Opisthacantha <i>Ashmead</i> . | |
| Mandibles 3-dentate. | |

Abdominal segments 2 and 3 of an equal length, the first short.

Lapitha Ashmead (type *L. spinosa* ASHM.).

13. Marginal vein short, or not more than half the length of the stigmal vein, most frequently punctiform.

Mesonotum with parapsidal furrows..... 14

Mesonotum without parapsidal furrows.

Head quadrate; mandibles 3-dentate.

Cacellus Ashmead = *Cacus* Riley preoc.

(type *C. acanthi* ASHM.).

14. Club of antennæ 5- or 6-jointed..... **Anteris** Förster.

(type *A. rufitarsis* ASHM.).

Club not differentiated, the flagellum filiform..... **Apegus** Förster.

(type *A. leptocerus* FÖRSTER.).

15. Mesonotum with parapsidal furrows..... 16

Mesonotum without parapsidal furrows..... 21

16. Mesonotum with two furrows..... 17

Mesonotum with three furrows.

Postscutellum bidentate..... **Hoploteleia** Ashmead.

(type *H. floridana* ASHM. ? = *Romilius* Walker).

17. Abdomen not very long, ovate or oblong-oval..... 20

Abdomen very long, fusiform.

Metathorax unarmed..... 19

Metathorax with two teeth..... 18

18. Mandibles 3-dentate..... **Cacellus** Ashmead.

19. Mandibles 3-dentate..... **Macroteleia** Westwood.

Mandibles 2-dentate **Caloteleia** Westwood.

Mandibles 2-dentate; metathorax unarmed..... **Auteris** Förster.

21. Postscutellum simple, unarmed..... 22

Postscutellum armed with a spine..... **Opisthacantha** Ashmead.

22. Abdomen without a horn at base..... 23

Abdomen with a horn at base.

Marginal vein short..... **Caloteleia** Westwood.

Marginal vein long..... **Baryconus** Förster.

23. Abdomen broadly oval, sessile, the second segment usually a little the largest.. 25

Abdomen not broadly oval, long-fusiform.

Club of antennæ 4- or 5-jointed..... 24

Club of antennæ 6-jointed; abdominal segments normal. **Cacellus** Ashmead.

24. Club of antennæ oval, 5-jointed; abdominal segments strongly constricted.

Cremastobæus Ashmead (type *C. bicolor* ASHM.).

Club of antennæ 4-jointed, the funicle joints very minute, transverse, the pedicel as long as the first three or four joints united; abdominal segments not constricted, the third segment the longest.....

Embidobia Ashmead.

(type *E. urichi* ASHM.).

25. Club of antennæ 6-jointed..... **Hadronotus** Förster (type *H. caliceps* FÖRSTER).

26. Submarginal vein reaching the costa often by a thickened stigma..... 27

Submarginal vein ending in a knob or stigma, but not reaching the costa.

Wings narrow, fringed; abdomen much depressed, long and pointed.

Bæoneura Förster (type unknown).

27. Submarginal vein ending in a thickened stigma..... 28
 Submarginal vein not ending in a thickened stigma.
 Mesonotum with parapsidal furrows; marginal vein very short, the post-
 marginal vein hardly developed or shorter than the stigma.
Idris Förster (type *I. flavicornis* FÖRSTER).
28. Head normal, without a frontal lamina or ledge; postmarginal vein not devel-
 oped..... 29
 Head abnormal, with a frontal lamina or ledge; scutellum quadrate, the posterior
 angles acute; postscutellum with a large erect spine.
Acanthoscelio Ashmead (type *A. americanus* ASHM.).
 Scutellum and postscutellum normal, the latter not spined.
Sparasion Jurine (type *S. frontale* LATR.).
29. Mesonotum with parapsidal furrows..... 30
 Mesonotum without furrows or very rarely distinct.
 Maxillary palpi short, 3-jointed..**Scelio Latreille** (type *S. rugulosa* LATR.).
30. Maxillary palpi short, 3-jointed.....**Scelio Latreille**.
 Maxillary palpi long, 5-jointed.....**Scellomorpha Ashmead**.
 (type *S. longicornis* ASHM.).
31. Postmarginal vein always greatly lengthened, the submarginal vein complete,
 never ending in a stigma..... 32
 Postmarginal vein wanting or poorly developed, always shorter than the stigmal
 vein, the submarginal vein often abbreviated and ending in a large stigma;
 abdomen usually long..... 49
32. Basal nervure present, distinct..... 33
 Basal nervure wanting 42
33. Mesonotum with parapsidal furrows..... 34
 Mesonotum without furrows..... 38
34. Metathorax with a large semicircular enclosed space 37
 Metathorax without an enclosed space.
 Postscutellum not spined..... 35
 Postscutellum spined 41
35. Marginal vein longer than the stigmal vein..... 36
 Marginal vein punctiform or not longer than the stigmal vein.
 Mandibles 3-dentate**Caloteleia Westwood**.
 Mandibles 2-dentate.....**Anteris Förster**.
36. Mandibles 3-dentate.
 First joint of the flagellum scarcely longer than the third, the latter excised.
Macroteleia Westw.
 First joint of the flagellum much longer than the third..**Baryconus Förster**.
37. Mandibles 3-dentate; marginal vein punctiform.....**Chromoteleia Ashmead**.
38. Postscutellum not spined 39
 Postscutellum spined 44
39. Marginal vein long, always longer than the stigmal vein..... 40
 Marginal vein punctiform, or shorter than the stigmal vein.
 Mandibles 3-dentate.
 First joint of the flagellum very long.....**Caloteleia Westwood**.
 First joint of flagellum shorter than the second.....**Cacellus Ashm.**

40. Mandibles 3-dentate **Baryconus** Förster.
 41. Marginal vein longer than the stigmal vein; mandibles 3-dentate.
 Lapitha Ashmead.
 Marginal vein shorter than the stigmal vein; mandibles 2-dentate.
 Opisthacantha Ashmead.
 42. Mesonotum with parapsidal furrows..... 43
 Mesonotum without parapsidal furrows..... 45
 43. Mesonotum with two furrows..... 44
 Mesonotum with three furrows.
 Postscutellum bidentate; tip of abdomen ending in two short prongs.
 Hoploleleia Ashmead.
 44. Metathorax unarmed: mandibles 3-dentate..... **Macroteleia** Westwood.
 Metathorax bidentate; mandibles 2-dentate.....? **Cacellus** Ashm.
 45. Postscutellum simple, not spined..... 46
 Postscutellum spined..... **Opisthacantha** Ashmead.
 46. Metathorax unarmed, simple. 47
 Metathorax with two small teeth at apex; mandibles 2-dentate. **Cacellus** Ashm.
 47. Abdominal segments not strongly constricted..... 48
 Abdominal segments strongly constricted; antennæ subclavate.
 Cremastobæus Ashmead.
 48. Antennæ subfiliform, slightly and gradually thickened towards apex, the flagellar
 joints after the first not or not much longer than thick... **Hadronotus** Förster.
 49. Submarginal vein usually reaching the costa, usually but not always stigmated at
 apex..... 50
 Submarginal vein not reaching the costa, ending in a knob... **Bæoneura** Förster.
 50. Submarginal vein ending in a stigma 51
 Submarginal vein not ending in a stigma.
 Mesonotum with two furrows; marginal vein very short, the postmarginal
 vein hardly developed or shorter than the stigma..... **Idris** Förster.
 51. Head without a frontal ledge or lamina..... 52
 Head with a frontal ledge or lamina.
 Scutellum quadrate, the hind angles acute; postscutellum spined.
 Acanthoscelio Ashmead.
 Scutellum and postscutellum normal..... **Sparasion** Jurine.
 52. Mesonotum without furrows or rarely distinct... 53
 Mesonotum with two furrows.
 Antennæ 12-jointed, long; maxillary palpi long, 5-jointed.
 Sceliomorpha Ashmead.
 Antennæ 10-jointed, not long; maxillary palpi short, 3-jointed.
 Scelio Latreille.
 53. Antennæ 10-jointed; maxillary palpi short, 3-jointed..... **Scelio** Latreille.

Family LVII. PLATYGASTERIDÆ.

This is probably one of the largest families in the superfamily Proctotrypoidea, the most widely distributed and of great economic importance, the species all being parasitic in dipterous larvæ, belong-

ing principally to the families Cecidomyiidae and the Tipulidae. The gall-inhabiting and fungus-inhabiting species are especially subject to their attacks.

Species belonging to the genus *Amitus* Haldeman are, however, reared from species belonging to the homopterous family Aleurodidae, but since these insects also have dipterous parasites or dipterous insects associated with them, it is quite probable that the *Amiti* come from the Diptera and not from the aleurodids.

The family is quite closely allied to the Scelionidae, where Haliday placed it, but from that family it may be easily separated by the different antennae which are never more than 10-jointed, by the 2-jointed maxillary palpi, by the 1-jointed labial palpi, and by the mandibles which are always bidentate.

TABLE OF SUBFAMILIES.

Submarginal vein in front wings clavate or ending in a stigma or knob.

Subfamily I. INOSTEMMINÆ.

Submarginal vein in front wings entirely absent or only indicated at the base, never clavate or knobbed at apex.

Subfamily II. PLATYGASTERINÆ.

Subfamily I. INOSTEMMINÆ.

Table of Genera.

- | | |
|----------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------|
| 1. Females | 2 |
| Males | 8 |
| 2. Tarsi 5-jointed..... | 3 |
| Tarsi 4-jointed. | |
| Antennæ 8-jointed, the flagellar joints nodose-pedicellate, with whorls of hairs; submarginal vein ending in a small knob. | |
| Iphetrachelus Haliday (type <i>I. lar</i> HAL.). | |
| 3. Antennæ 10-jointed..... | 4 |
| Antennæ 9-jointed | Allotropia Förster (type <i>A. mecrida</i> FÖRST.). |
| 4. Front wings with a basal nervure | 5 |
| Front wings without a basal nervure..... | 6 |
| 5. Mesonotum with the furrows distinct or faint. | |
| Club of antennæ 3-jointed | Metaclisis Förster. |
| (type <i>Platygaster areolatus</i> HAL.). | |
| Club of antennæ 4-jointed..... | Monocrita Förster (type <i>M. atinas</i> FÖRST.). |
| 6. Lateral ocelli nearer the inner margin of the eye than to the front ocellus..... | 7 |
| Lateral ocelli nearer the front ocellus than to the inner margin of the eye. | |
| Club of antennæ 4-jointed..... | Isostasius Förster. |
| (type <i>Platygaster punctiger</i> NEES). | |
| 7. Basal segment of the abdomen with a horn that extends forwards over the thorax; mesonotum with faint furrows..... | Inostemma Haliday. |
| (type <i>Platygaster boscii</i>). | |

Basal segment of the abdomen normal, without a horn; mesonotum with distinct furrows; club of antennæ 4-jointed, the funicle joints slender, cylindrical.

Acerota Förster.

8. Tarsi 5-jointed..... 9
Tarsi 4-jointed.
Antennæ 10-jointed, with whorled hairs.....**Iphetrachelus Haliday.**
9. Antennæ 10-jointed..... 10
Antennæ 9-jointed, with whorled hairs.....**Allotropia Förster.**
10. Front wings with a basal nervure..... 11
Front wings without a basal nervure of the submarginal vein ending in a knob. 12
11. Mesonotum with two faint furrows or with distinct furrows. Antennæ subclavate, moniliform, the first joint of the funicle very minute, the second somewhat larger, the following to the tenth large, gradually enlarged; the last the largest, conical.....**Metacclisis Förster.**
Antennæ filiform submoniliform, the first joint of the funicle very minute, the second larger, thickened, curved, the third small, triangular, the following, except the last, transverse-moniliform, the last conical....**Monocrita Förster.**
12. Lateral ocelli nearer the inner margin of the eye than to the front ocellus..... 13
Lateral ocelli nearer the front ocellus than to the inner margin of the eye; pedicel obconical, rather long; club of antennæ 4-jointed.....**Isostasius Förster.**
13. Mesonotum with faint furrows; antennæ moniliform, pubescent, the first two funicular joints nearly equal, the second somewhat curved, the third small, triangular, the four following moniliform, the last conical.

Inostemma Haliday.

Mesonotum with two distinct furrows; antennæ filiform, pubescent, the second funicular joint long, cylindrical, longer than the first, the third shorter than the first, the following oval, the last about thrice as long as thick.

Acerota Förster.

Subfamily II. PLATYGASTERINÆ.

To this subfamily belong all species with veinless wings, all the veins being wholly gone or obliterated, except sometimes the submarginal vein basally; if present it is, however, never knobbed, as in the Inostemminæ.

The genera recognized in this group are much more numerous and more difficult to separate than those in the previous subfamily, but it is believed that the characters made use of in the table below will be sufficient for their recognition.

Table of Genera.

1. Females..... 2
Males..... 18
2. Scutellum lengthened, spined, or when shortened, compressed at the sides and furnished with an awl-shaped thorn, spine or tubercle..... 3
Scutellum not lengthened semicircular, either flat or convex, cushion-shaped, or cupuliform, and always unarmed..... 9

Lateral ocelli not close to the eye margin ; club of antennæ 5-jointed.

Trichacis Förster (type *Platygaster pestis* WALKER).

13. Abdomen not much lengthened..... 14
Abdomen very much lengthened.

Club of antennæ 5-jointed ; mesonotal lines distinct.

Polymecus Förster (partim).

14. Lateral margins of the abdomen normal..... 15
Lateral margins of the abdomen broadly deflexed.

Mesonotal furrows distinct.....**Hypocampsis** Förster.

(type *H. hyalinata* THOMSON).

15. Thorax short, the scutellum pillow-shaped, separated from the mesonotum by a deep furrow.. 16

Thorax more elongate, the scutellum not separated from the mesonotum by a deep furrow ; mesonotal furrows distinct..... 17

16. Face with a distinct keel between the antennæ.....**Eritrissomerus** Ashmead.

(type *E. cecidomyiæ* ASHM.).

Face without a keel between the antennæ**Polygnotus** Förster.

(type *Platygaster striolata* NEES).

17. Lateral ocelli nearer the eye margin than to the front ocellus.

Platygaster Latreille (type *P. rufipes* LATR.)

Lateral ocelli nearer the front ocellus than to the eye margin.

Isocybus Förster (type *Platygaster grandis* NEES).

18. Scutellum lengthened, never semicircular ; if shortened it is compressed at the sides and furnished with an awl-shaped thorn or tubercle.....19

Scutellum not lengthened, semicircular, or either flat, convex or cushion-shaped.....25

19. Scutellum lengthened, triangular, often produced into a long, acute spine.....20

Scutellum not lengthened, with an awl-shaped thorn, short thorn or tubercle. 22

20. Thorax not strongly compressed from the sides..... 21

Thorax strongly compressed from the sides.

Head large, rounded or quadrate.....**Piestopleura** Förster.

21. Mesonotal furrows deep, parallel posteriorly.....**Xestonotus** Förster.

Mesonotal furrows at most feebly impressed or wanting....**Amblyaspis** Förster.

22. Scutellum with a short thorn or tubercle at apex.....23

Scutellum with a strong awl-shaped thorn at apex.

Lateral ocelli nearer the eye margin than to the front ocellus.

Laptacis Förster.

Lateral ocelli nearer the front ocellus than to the eye margin or not nearer to the eye margin than to the front ocellus.....**Isorhombus** Förster.

23. Abdomen not much lengthened.....24

Abdomen much lengthened, longer than the head and thorax united, the second segment very large.

First joint of flagellum minute, rounded, the second large, dilated.

Polymecus Förster.

24. Ocelli their width from the eye margin**Sactogaster** Förster.

Ocelli close to the eye margin.....**Synopeas** Förster.

25. Scutellum not cupuliform, convex or flattened..... 26

- Scutellum cupuliform as in the Figitid genus *Eucolia*; mesonotum without furrows.
Cælopecta Ashmead.
26. Scutellum convex or cushion-shaped..... 27
 Scutellum quite flat or almost subconvex.
 Mesonotal furrows distinct; antennæ verticillate..... **Amitus** Haldeman.
 Mesonotal furrows wanting or distinct; antennæ 10-jointed, not verticillate
 subclavate **Anopediæ** Förster.
27. Scutellum without a tuft of hairs at apex..... 28
 Scutellum with a tuft of hairs at apex.
 Lateral ocelli away from the left margin; club of antennæ 6-jointed, the first
 funicle joint small, the second large, much longer than thick, the third
 shorter; parapsidal furrows complete..... **Trichacis** Förster.
28. Lateral margins of abdomen normal 29
 Lateral margins of abdomen broadly deflexed.
 Lateral ocelli nearer to the eye margin than to the front ocellus; club of
 antennæ 4- or 5-jointed, the first joint smallest; parapsidal furrows want-
 ing or incomplete..... **Hypocampsis** Förster.
29. Thorax not short, more elongate; scutellum not separated from the mesonotum
 by a deep furrow; mesonotal furrows distinct, rarely incomplete..... 30
 Thorax short; scutellum pillow-shaped or highly convex, separated from the
 mesonotum by a deep furrow; mesonotal furrows variable, more rarely dis-
 tinct or complete, sometimes wanting.
 Face with a sharp keel between the antennæ; third joint of antennæ strongly
 dilated **Eritrissomerus** Ashmead.
 Face without a sharp keel between the antennæ..... **Polygnotus** Förster.
30. Lateral ocelli nearer the eye margin than to the front ocellus.
Platyaster Latreille.
 Lateral ocelli nearer the front ocellus than to the eye margin... **Isocybus** Förster.

WINDING ELBOW-PINS.

ALEX. D. MACGILLIVRAY.

Elbow-pins are useful for mounting minute insects of many kinds, as Diptera, Hemiptera, Homoptera and Hymenoptera. They are much firmer and neater appearing mounts than those made with blotting-paper, bristol-board, cork or pith. Elbow-pins are not listed by dealers in entomological supplies, and any tools that will simplify the making of them are worthy of being noticed.

The apparatus described below was devised by Mr. J. O. Martin while a student in the entomological laboratory of Cornell University. It consists of two separate pieces, one for winding the coils 3c, and the other for placing the coils on the pins.